removal of both suprarenal capsules results in rapid death, which is preceded by great muscular weakness, diminished tone of the vascular system, and some nervous symptoms; a combination of events which is seen in Addison's disease, which is a disease of these organs. From the medullary portion of the gland, Schäfer has obtained an extract containing an active substance which is remarkable as producing its effects in very small doses (as little as 5½ milligrams in a dog weighing 10 kilos.), and as being capable of withstanding for some time the temperature of boiling water. This substance increases the duration of the contraction of muscle, as tested by the apparatus ordinarily in use in the physiological laboratory; but it has a more remarkable effect in greatly increasing the blood pressure, a result following a direct action on the peripheral arteries. In the case of the suprarenal capsule, there is thus distinct evidence of internal secretion; that is, of the presence in one part of the gland of a substance which has a well-marked physiological effect. Into all the questions arising out of this subject it is impossible now to enter. The subject is one of vast importance to scientific practical medicine. As the results of future investigation, we may hope to obtain not only a greater knowledge of the pathology of some obscure nutritional diseases, but some indications for their relief and treatment. This has already been accomplished in the case of myxœdema, in which the thyroid gland is degenerated, and in which very great benefit is obtained by feeding the patients with fresh thyroid gland, or by injecting the extract.

One other scientific result of the annual meeting may be viewed. It is the predominant place now given in the study of disease to the question of infection. All disease is not infective, but infection, in theory, has for many decades played an important part in pathology. The great change which has come over medical science is, that the question of infection is now studied from an experimental point of view. Vague theories have given place to facts, which are of prime importance, not only in the understanding of disease, but in its treatment. In the investigation of diseased, as well as of normal functions, the application of chemical methods has been of great service, and is destined to be of still greater importance.

The accurate study of infection deals with a far wider subject than the characteristics of the infective agent; since it is also concerned with the reaction of the body against the micro-organism and the poisonous chemical substances this produces. The study of this reaction of body has, from the morphological point of view, given a clearer view of the processes occurring in inflammation; and from the chemical point of view, it has opened up a wide field of possible therapeutical agents. The prospect is one which is reassuring for the future. The fact that infection is being so closely studied, and that the infective agents in so many diseases have been isolated, is of great importance to the human race; since infection is preventible. The fact that the body, in reacting against an infective disease, produces a substance which counteracts invasion, as well as the poisonous bodies formed by the infective agent, is of as great importance as the first point; since an infective disease may be cured. At the annual meeting, the discussion on pneumonia as an infective disease—a discussion which would have been impossible, and would even have been considered ludicrous only a few years ago—as well as the discussion on the utility of the diphtheria anti-toxin, illustrates the points mentioned. In the discussion on diphtheria, the great majority of the speakers, both those who considered the subject from the scientific aspect and those who looked at it simply from the practical point of view, agreed that the use of the anti-toxin in the disease was not only based on a firm scientific basis, but that it had completely changed the aspect of the disease. Whatever the limitations of the treatment by anti-toxic serum may in the future be proved to be, there can be but little doubt that its discovery marks an epoch in the treatment of infective disease.

THE IPSWICH MEETING OF THE BRITISH ASSOCIATION.

THE arrangements for the meeting of the British Association at Ipswich this autumn are making rapid progress. The General Election somewhat interrupted the preparations of the local secretaries, but the excitement being now over, general attention in the locality is again centred on the coming visit of the Association, and great efforts are being made in the town and neighbourhood to ensure the success of the meeting. The chief public buildings in the town are just emerging from the hands of the painter and decorator. The reception room will be located in the Town Hall, the council chamber being the room actually set apart for the purpose, whilst the library will be the writing room. The President's address and the evening discourses will be delivered in the public hall, as will also the lecture to working men. In the matter of Section rooms, the Local Committee will be able to offer the Association very good accommodation, as there are fortunately a number of suitable rooms and halls in the town within a very short distance of each other, and all are close to the reception room. The two halls at the Girls' High School, which were formerly the New Assembly Rooms, and were used for the reception room and for Section E on the occasion of the Ipswich meeting in 1851, will be allotted to Section A (Mathematical and Physical Science) and Section B (Chemistry). About two hundred yards distant is the Co-operative Hall, in which Section G (Mechanical Science) will meet. Section C (Geology) will be accommodated in the Art Gallery adjoining the Museum. Section D (Zoology) and the new Section K (Botany) will have, respectively, the banquet room and the lodge room at the Masonic Hall. The Lecture Hall, adjoining the Ipswich Institute, will be given over to Section E (Geography), whilst across the street, the Working Men's College (formerly known as the Old Assembly Rooms) will be set apart for Section H (Anthropology).

The proceedings will commence on the evening of Wednesday, September 11, when the Marquis of Salisbury will retire from the presidential chair, and Sir Douglas Galton will take his place. The new President will then proceed to deliver his address. The second evening will, as usual, be devoted to a conversazione, which will probably be held in the museum and the adjoining buildings, used as art and technical schools. On Friday evening Prof. Silvanus P. Thompson will deliver a lecture on "Magnetism in Rotation." On Monday evening Prof. Percy F. Frankland will discourse on "the work of Pasteur and its various developments," and on Tuesday there will be a soirée given by the Ipswich Scientific Society and the Suffolk Institute of Archæology jointly. This, like the first soirée, will probably be held in the Museum buildings. The lecture to working men will be given on the Saturday evening by Dr. Alfred H. Fison, who takes "Colour" for his subject.

In response to a special invitation which the Local Committee issued to foreign men of science, the following gentlemen have signified their intention of being present at the meeting:—Prof. A. Gobert (Brussels), Prof. W. E. Ritter (Heidelberg), Rev. T. Adams (Canada), M. J. Dantzenburg (Paris), Dr. O. Maas (Munich), M. Boule (Museum d'Histoire naturelle, Paris), Prof. Ira Remsen (Johns Hopkins University, U.S.A.), Prof. Runge (Hanover), Prof. E. C. Hansen (Copenhagen), Dr. van Rijckevorsel (Rotterdam), M. G. Dolfus (Paris), His Excellency Don Arturo de Marcoartu, M. E. van den Broeck

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(Brussels), Prof. Michie Smith (Madras), M. A. P. N. Franchimont (Leiden), Dr. H. Haviland Field (New York), Dr. Bashford Dean (Colombia College, New York), Prof. J. W. Langley (Ohio, U.S.A.), Dr. Paschen (Hanover), Dr. Conwentz (Dantzic), M. Berthelin (Paris). A large number of the leading scientific men in England have already notified that they will attend the meeting.

The hon. local secretaries for the meeting are Messrs. S. A. Notcutt, G. H. Hewetson, and E. P. Ridley. All communications to them should be addressed to the Museum, Ipswich.

BAILLON, BABINGTON, EATON.

BY the death of Henri Ernest Baillon, France has lost one of her most accomplished botanists, and certainly her leading systematist. Under date of the 19th ult. the writer received the following lines from a friend at the Muséum d'Histoire naturelle, Paris.

"Je vous écris sous une bien pénible impression; M. Baillon est mort hier soir subitement. Dans l'après midi il était venu au laboratoire selon son habitude. À 5 heures et demie il prit un bain; à 6 heures son fils rentrant de l'École de Médecine le trouva mort. On croit que le bain, un peu trop chauffé, a déterminé une congestion.

"C'est une grande perte pour nous et pour la botanique. S'il avait des ennemis implacables, il avait aussi des amitiés fidèles. Je ne doute pas que l'avenir ne montre que derrière un ésprit, dont les manifestations parfois acerbes visait moins la personnalité que ce qu'il jugeait être l'erreur, se cachait un cœur sensible a l'excès. Il est un bon nombre de ses élèves pauvres qui savent de quelles délicatesses il savait entourer une aumône.

"Quoiqu'il en soit c'était un grand botaniste; vous le jugez ainsi, n'est ce pas?

"Ses quatre enfants vont se trouver dans la misère la plus profonde qu'on puisse imaginer. Ce qu'il n'a pas dépensé de sa fortune pour la publication de ses livres a disparu dans le gouffre des dettes de celle qui a porté son nom. Aujourd'hui il ne reste rien."

The allusion to Baillon's personal character in the foregoing letter will appeal to the sympathies of those who knew him on this side of the channel. Unfortunately he quarrelled with some of the foremost French botanists of assured position, which led to regrettable and undignified recriminations on his part, and resulted in closing the doors of the Académie des Sciences against him for ever. This embittered his life considerably, and rendered his relations with a section of the botanists of Paris almost unbearable.

For most of the following particulars of Baillon's career I am indebted to the author of the above letter. Henri Baillon, as he usually signed himself, was born at Calais, November 29, 1827, of a family of good position and reputation in the town and district. He studied with great distinction at the Lycée de Versailles, and commenced his medical education at the age of seventeen. In 1854 he became house-surgeon at the Hôpital de la Pitié, Paris, a position obtained only by severe competition; and he was so brilliantly successful in his work, that he was unanimously awarded the gold medal of the Internat, the highest reward at the disposal of the Faculté de Médecine. His candidature for the degree of Docteur en Médecine was a perfect triumph, for he completely held his examiners, both by the elegance of his diction and the depth of his scientific views. In 1863 he succeeded Moquin Tandon in the Chair of Botany at the École de Médecine, and he filled this chair up to the time of his death; and for some time was Professor of Botany at the Lycée Napoléon as well. He was also Docteur ès Sciences. In 1875 he was elected a foreign member of the Linnean Society of London, and last year he received the same distinction from the Royal Society. This gave him much pleasure, and consoled him, in some measure, for the implacability of his own countrymen. In 1866 he and a few others founded the Société Linnéenne de Paris. He was elected president, and continued to act as such until his death. For some years the *Proceedings* of this very small Society were published in Baillon's own periodical, *Adansonia*, and then a *Bulletin Mensuel* appeared, and has continued to appear down to the present time, entirely owing to the energy and industry of the president. This organ was not published, but distributed to the leading botanical establishments; hence there is no record of Baillon's numerous articles therein in the Royal Society's catalogue of scientific papers. Yet, omitting these, the catalogue contains the titles of 230 of his papers, published between 1854 and 1883. But Baillon was a most prolific writer, and covered a considerable range, though systematic botany was his chief study. I need only name his *Adansonia*, twelve volumes, 1866 to 1879; "Dictionnaire de Botanique," four volumes, 1876 to 1892; "Histoire des Plantes," 1867-95, and still unfinished. Baillon, too, was the only French botanist who occupied himself on the rich collections of flowering plants in Paris from Madagascar; being the author of the uncompleted "Histoire des Plantes de Madagascar," forming a portion of Grandidier's great work on Madagascar.

Baillon was one of the few existing botanists having a good knowledge of the phanerogamic flora of the world. As a writer, however, he was more critical than methodical, and many of his original observations and suggestions have been overlooked by botanists who have subsequently gone over the same ground. This is owing to the fact that the titles of many of his articles do not sufficiently describe their contents. Not infrequently a new genus or a new species is described in the body of a paragraph, and sometimes so informally, that only by careful reading is it possible to arrive at the fact. This often caused the author himself chagrin, especially as he was very sensitive and apt to believe that his work had been purposely ignored. I had almost forgotten to mention that the Euphorbiaceæ were one of his favourite families, and his "Étude Générale du Groupe des Euphorbiacées" is one of his most finished works. This is not the place to enter into a more critical examination of his works, but I cannot help mentioning that the illustrations almost throughout are of a high order of merit. Dr. Baillon has been a frequent visitor to Kew and the British Museum during the last thirty years, and many botanists will join me in regret for his sudden death whilst apparently in almost the full vigour of life.

The veteran Professor of Botany, Charles Cardale Babington, in the University of Cambridge, whose death has lately taken place, was born at Ludlow in 1808, and educated at St. John's College, Cambridge, taking his B.A. in 1830 and M.A. in 1833. As long ago as June 1830, he was elected a Fellow of the Linnean Society; yet there are still two of earlier date in the Society's list, namely, Dickinson Webster Crompton and William Pamplin, both elected the previous January. There are only two others, Thomas Archer-Hind and James Bateman, who have been Fellows of the Society for upwards of sixty years. In 1851 Babington was elected a Fellow of the Royal Society, and among the fifteen of that year, it may be mentioned, were the late Prof. Huxley, Lord Kelvin, Sir James Paget, and Sir Gabriel Stokes. In 1861 he succeeded the Rev. J. S. Henslow in the Botanical Chair at Cambridge, a post he held up to his death, though for many years he was incapacitated from performing the duties. Prof. Babington was, in his early years at least, a prolific writer, his first paper appearing in 1832. His writings were almost exclusively on the British flora; and his name will stand in the history of British botany as the inaugurator of a more critical delimitation

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